

"PRESS-FIT"
Teflon terminals
"CON-HEX"
rf connectors
"SEALC" BOARD
program boards
"SEALCOTSWITCH"
programming switches
"SEALCOCARD"
static card readers
"DELTIME"
delay lines



SEALCRO

TERMINALOGY

SEALCRO CORPORATION • 225 Hoyt Street • Mamaroneck, N. Y. 10543

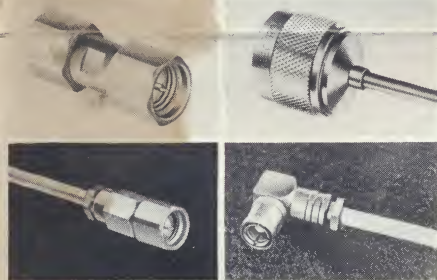
WESCON SPECIAL

VOL. 10, NO. 2

August, 1967

SEALCRO TO DISPLAY WIDE RANGE OF NEW PRODUCTS, IDEAS AT WESCON SHOW BOOTHS 4309-4311

NEW SRM® MINIATURE CONNECTORS, ADAPTORS TO HIGHLIGHT CONHEX® LINE



A variety of new miniature coaxial connectors, adaptors and allied products will point up the tremendous growth in miniaturized rf components at Sealectro Corporation's ConheX exhibit at this year's WESCON Show.

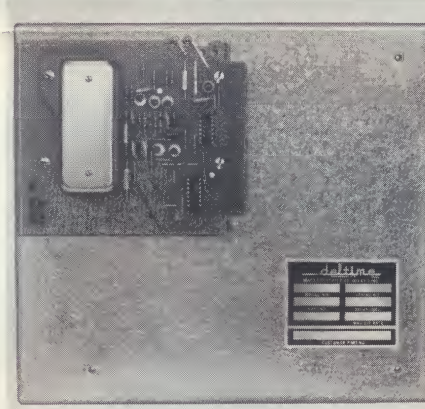
Among latest developments is the ConheX 50-607-3188-3L, a straight cable plug in the SRM series of rf connectors that provides extremely-low VSWR up to 18 GHz. The plug is designed for use with RG-161/U, 174/U, 179/U, 188/U and 316/U flexible coaxial cables and is also available for a large number of other flexible and semi-rigid coaxial cables. It is constructed of stainless steel for mechanical strength and wear resistance, and gold plated per MIL-G-45204, over nickel per QQ-N-290.

ConheX will also show a new, smaller right-angle cable plug featuring a better cable clamp designated Part No. 51-311-3188. Applicable to the same cables as the unit just described, this connector is smaller and lighter than standard MIL-C-22557 screw-on equivalents. In addition, it has a new style cable-clamping mechanism that greatly reduces the time required to trim and assemble the cable to the connector.

Another interesting connector to be exhibited this year will be ConheX 57-007-0109-

Continued on Page 2

RECIRCULATING MEMORY MODULE INTERFACES DIRECTLY WITH DTL-930 MICROLOGIC

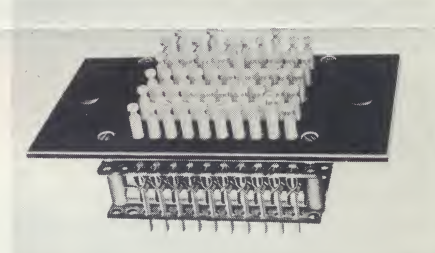


A new recirculating delay-line memory module that is fully compatible with integrated circuits (DTL 930 Micrologic) will be shown for the first time at this year's WESCON Show by the Delttime Division of Sealectro Corp.

Designated Model RZ-90, the new module is designed to accept a variety of standard or custom "Delttime" delay lines to provide storage capabilities between 20 and 10,000 bits and delays between 20 and 15,000 μ sec. Applications include sequential information storage for CRT displays, buffer memories for teletype information and programming for numerically-controlled machines.

Delttime's new recirculating memory module operates on -10 vdc at 20 ma, +10 vdc at 21-56 ma, +5 vdc at 35 ma, and includes trigger, inhibit and clock inputs which make it suitable for use with conventional memory logic. The module is supplied with full technical information and a data sheet outlining the specifications obtainable with different delay lines.

CAPTIVE-PIN PROGRAM BOARDS OFFER TIME SAVING, SPACE CONSERVATION



The Programming Devices Division of Sealectro Corporation will exhibit a variety of state-of-the-art innovations at the 1967 WESCON Show.

A new series of captive-pin "Sealecto-boards" will be displayed. These units represent substantial savings in panel space as compared to conventional techniques employing rotary or toggle switches and also save operator setup time. For example, as many as 100 switches may be supplied on a board measuring only 2-7/8" x 2-7/8". In the event that specific switch contacts are to be bussed to common supply or signal sources, vast savings in wiring are also realized.

Another innovation in programming boards, "pluggable" Sealectoboards will also be on exhibit. These boards allow installation of a completely pre-pinned program in a matter of seconds, permitting two or more program patterns in pre-operational modes which can be plugged in as required. The two types available include a standard Sealecto-board which is pre-programmed and utilizes pluggable matrix buss termination, and a basic pluggable unit designed for applications requiring shorting pins, using a standard board for a female connector.

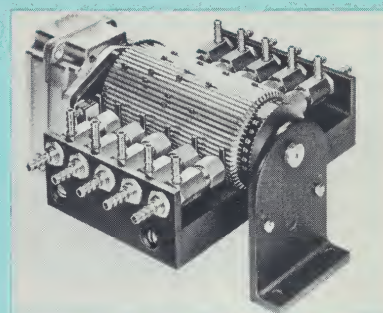
These are just two examples of a very wide range of board types and configurations that will highlight the WESCON exhibit.

FLUIDIC/PNEUMATIC PROGRAMMING SWITCH WITH FIELD-ADJUSTABLE PROGRAMS AND SEQUENCES, CONTROLS AIR PRESSURES FROM 70-100 PSI

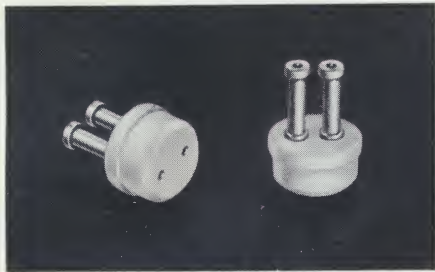
A new programming switch that completely eliminates solenoid-actuated valves and electronic circuits while offering up to 60 independent programs on a single memory drum will be exhibited at WESCON.

The simplest and most flexible device presently available to industry for controlling pneumatic or fluidic circuits, the new programmer features field-adjustable sliding actuators contained on a precision grooved drum. These actuators control high-reliability pneumatic valves which may be actuated or released in 6 degree increments.

With the "Sealectoswitch" Fluidic/Pneumatic programmer, there is little chance that a preset sequence or program will be accidentally upset during equipment operation. Unit can operate on a recycling time base continuously repeating switching sequence on a fixed time cycle, or advancing from one programming combination to the next with a step function on demand. It is available with time-based, stepping or manual drives with both camming and step functions in a single unit.



NEW DUAL FEED-THRU TERMINAL ACCEPTS MORE CONNECTIONS



A new two-pin feed-thru terminal that features dual tubular lugs mounted in a single Teflon bushing designed for multi-connection applications has been developed by the Circuit Hardware Division of Sealectro Corporation, and will be shown at the WESCON Show.

Designated Press-Fit® FT-MC-300, the new terminal represents an innovation in miniature feed-thru design. Component leads come up from beneath the chassis, through holes in the lugs and are then soldered in place. Circuit wiring can be attached to the outer lugs, completing the package.

The new unit is fabricated of pure virgin Teflon and has gold flash over silver-plated brass lugs measuring 0.207", and lugs with solder areas 0.045" in diameter. The entire assembly measures 0.347". FT-MC-300 is available in any of ten standard colors to facilitate circuit identification.

SHORT VARIABLE DELAY LINE HAS 7:1 MINIMUM DYNAMIC SIGNAL-TO-NOISE RATIO



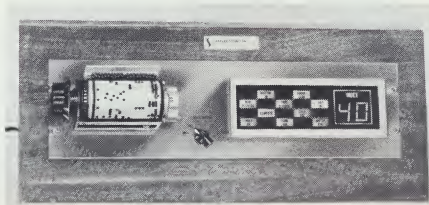
A new short variable delay line adjustable between 10 and 18 μ sec with a dynamic signal-to-noise ratio of 7:1 minimum has been developed by the Electronic Subsystems Div.

Designated Delttime® Model LG-14, the new unit features high sensitivity and signal-to-noise ratio and produces 40 mv minimum output across 4700 ohms when driven with 10 volts at 60 ma peak current.

Model LG-14 is solder ready for military applications, and will meet or exceed the applicable requirements of MIL-STD-202A.

SEE
SEAELECTRO
AT
WESCON SHOW

VISUAL FUNCTION INDICATION NOW AVAILABLE WITH SEAELECTOSWITCH™ PROGRAMMING SWITCHES

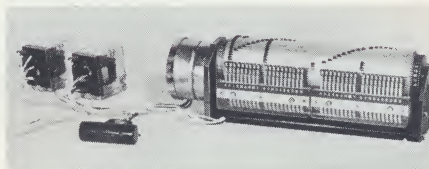


A novel package incorporating any of a wide variety of "Sealectroswitch" programming switches and visual readout will be on display by Sealectro Corporation at WESCON.

Optional visual indication feature is available in extensive forms to fulfill individual system requirements. With this addition, personnel can instantly see where in the cycle a programming switch is, as well as the individual functions being performed at each step.

Package configurations include the standard 19" panel mounting shown in the photo, plus any of a wide number of custom mounts to suit customer needs.

AUTOMATIC SEARCHING OF WATER LEVEL CONTROL MADE POSSIBLE BY NEW SEAELECTOSWITCH™ PROGRAMMER



The control of water levels through the use of automatic searching for optimum flow rate is made possible by a new Sealectroswitch programmer and bi-directional stepping motor drive.

In this demand system, the input to the reservoir is a function of drain with fast flow prevailing during the low tank level and a slow rate at higher levels. The input is managed by a number of binary coded pumps controlled by the programmer. High and low level controls determine the direction in which the programmer will sequence. At periodic intervals, level control is automatically read to determine any change in levels and flow rate increased or decreased accordingly.

Complete Sealectroswitch programming systems are packaged on standard relay rack panels with visual read-out of program status optional.

NEW CONHEX® UNITS

Continued from Page 1

3L, a 50-ohm type "N" straight plug which permits the soldering of copper-jacketed cable directly to the connector. The new plug is designed for use with 0.141" diameter semi-rigid coaxial cable, and is fabricated of gold-plated stainless steel for minimum electrical resistance and maximum environmental protection. Contacts are rigidly captivated for maximum reliability.

An unusual SRM series plug-to-plug adaptor, ConheX Part No. 50-673-0000-3L will also be displayed. This unit is designed to mate with connectors of similar series including OSM — as are all SRM units. It is also constructed of gold-plated stainless steel for high electrical performance. The new unit measures less than 1" in overall length and is supplied with 0.218" wrench flats on the main connector body.

PROCESS CONTROL PROGRAM BOARD SWITCHES SELECTIVE SENSOR INPUTS TO MULTI-CHANNEL RECORDERS



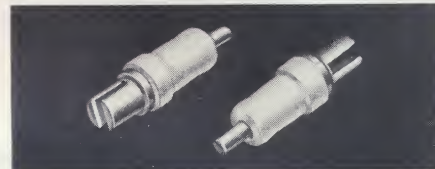
A new 27 x 25 Sealectroboard® engineered for monitoring process controls is now available.

The unit features a transparent cover hinged at the bottom and held securely closed by two magnetic latches. The cover offers protection to program pins, yet allows instant visual determination of preset programming.

The program board features horizontal and vertical gold-plated bussed contact strips which intersect each other at 90° angles. Contacts are mounted on phenolic decks and the cover panel is fabricated of 1/8" thick Lamicaid material. Units are custom engraved to individual specification.

This flexible 27 x 25 unit meets growing demands for switching selective sensors to multi-channel recorders in process applications.

NEW MICROMINIATURE FEED-THRU DESIGNED FOR VERY CLOSE SPACING



A new microminiature feed-thru terminal engineered for close spacing in extremely compact equipment has been developed by the Circuit Hardware Division.

Designated Press-Fit FT-MM-9SL, the new terminal features a narrow shoulder design where the shoulder diameter is only 0.13" greater than the .080" diameter lug base. This construction allows units to be mounted adjacent to each other in holes spaced only 0.125" center-to-center.

The new terminal is fabricated with pure Teflon and has a solder-finish plated brass lug which extends 0.100" above the Teflon shoulder. The unit has a 5.5 Ampere continuous-duty current rating, and is available in ten colors for rapid circuit identification.

SEAELECTRO
DISPLAYS AT
BOOTHS
4309-4311

DR. LASERSON TO SEAELECTRO MANAGEMENT POST



Dr. Gregory L. Laserson has been named vice president-technical operations at Seaelectro. He will, in this newly-created management position, direct and coordinate the company's research, development and engineering activities, all of which have been markedly accelerated by Seaelectro's rapid growth over the past two years.

Dr. Laserson comes to Seaelectro from American Machine & Foundry Co. where he had managed similar technical functions for seven years, most recently as director of engineering for the firm's \$100-million recreation products group. Previously he had served as manager of AMF's mechanical development laboratory and as director of research.

Before joining AMF in 1960, Dr. Laserson held a succession of engineering and management positions with United Nuclear Corporation and before that served as a research project supervisor four years with E. I. duPont de Nemours & Co.

Dr. Laserson received his bachelor's, master's and Ph.D. degrees, all in mechanical engineering, from Columbia University, the last in 1949. He held a duPont fellowship for three years.

AUTOMATIC CONTINUITY TESTING:

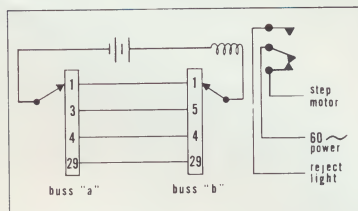


Fig. 1

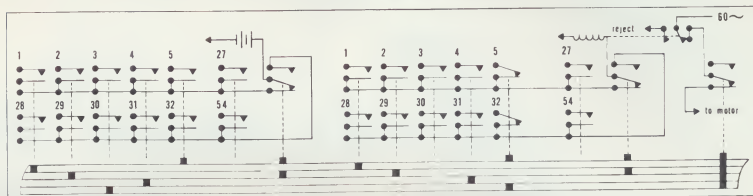
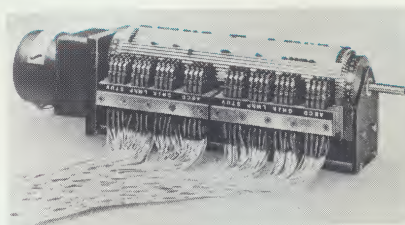


Fig. 2

RANDOM ACCESS CHECKER MEASURES UP TO 54 INDIVIDUAL CONDUCTORS

Making continuity tests of multiconductor cables on a limited basis is a relatively simple operation. Manufacturers producing these cables in large quantity, however, or using them in the fabrication of equipment harnesses, require a simple, positive automatic means of testing continuity.

One excellent method for testing cables with up to fifty-four individual conductors is available through the use of a Seaelectroswitch™ automatic programming switch. With this device, it is possible to design an economical tester with complete random access and simple programming that requires no internal changes for the positive measurement of many different cables.

To properly test cable continuity, a current should be passed through each individual wire. To implement this, one end of the wire can be connected to a buss "A", and the other end of the same wire to a second buss "B", as shown in Fig. 1. This conductor then becomes a portion of a series circuit that includes a power supply and a relay coil. If a break in the conductor occurs, the relay coil will de-energize, opening the relay contact and giving visual and/or aural indication of the failure.

The tester shown in Fig. 2 is really no more complicated than the simple single-conductor example in the preceding paragraph. It is, however, a little more sophisticated and totally automatic.

The Seaelectroswitch programming switch used is step-motor driven with two rows of 57 Form "C" independent switches that are easily programmed with actuators mounted on the drum as shown in the photo. The first 27 positions of the unit handle anywhere from 1 to 54 conductors of buss "A". The 28th position of the switch transfers from the inner to the outer row of switches, making it possible to connect any one of up to 54 wire ends to buss "A". Switch positions 29 through 56 are connected in a similar fashion to buss "B". This makes it possible to connect any one of up to 54 wire ends to either buss "A" or "B" and perform a positive, reliable continuity measurement.

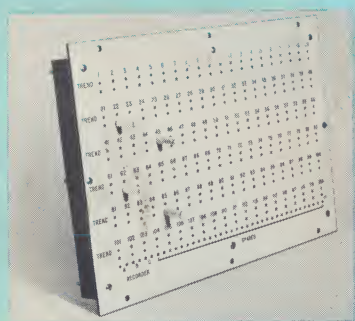
Naturally, this technique can be expanded to more than 54 conductors with additional programming switches. For cables with connectors attached, a simple jig employing appropriate mating connectors can be devised to facilitate final quality control tests.

NEW CONHEX® RIGHT ANGLE CABLE PROBE FOR TEST EQUIPMENT MONITORING

A new subminiature ConheX® 50-ohm right angle cable probe for use with RG-161/U, 174/U, 179/U, 188/U, and 316/U flexible coaxial cables is now available. Designated #55-011-0029, the new unit allows continuous or intermittent monitoring of test equipment signals simply by plugging into a receptacle.

A special mating end in the connector is designed for engaging with a receptacle located in the test equipment, while a Teflon insulator in the front portion protects the inner probe. Insulators are telescoped for high voltage ratings.

Special probes for use with test equipment can be designed to meet any specifications.

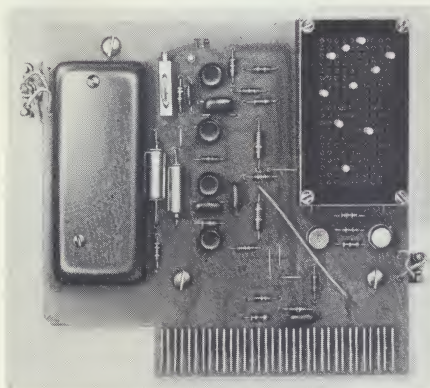


RAPID READOUT SEAELECTROBOARD® FOR DIODE-MATRIX PROGRAMMING

A new Seaelectroboard® for diode matrix programming or multi-pole input-output switching is now available from Programming Devices Division. The board features a white cover plate to provide high contrast for improved readout of program numbers designed to permit easier reading and thereby reduction in error factor.

Program holes for the rapid readout device are on 1/4" x 1/2" centers or 1/4" centers as required. This newest version of the Seaelectroboard has a 13 x 20 hole configuration but many other X-Y combinations are available on request.

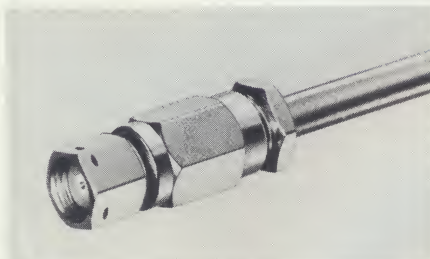
NEW SEAELECTOBOARD® X-Y PROGRAM MATRIX MOUNTS ON PRINTED CIRCUIT CARD



A new subminiature Seaelectoboard X-Y matrix board with holes on 0.100" centers is now available from the Programming Devices Division. The board offers terminations designed especially to fit into 1/16" diameter printed circuit card holes and can be wave soldered along with other components on the card.

A typical 10 x 20 board packs 200 switching points into a space as small as 1½" x 2¼" with switching accomplished by shorting pins. Where diodes are required to alter the logic of the circuit, a miniature component holder housing a sub-miniature diode is employed.

NEW STRAIGHT PLUG FOR 0.141" DIAMETER COAXIAL CABLES



A 50-ohm ConheX® straight cable plug for use with 0.141" diameter semi-rigid coaxial cable is a new addition to the RF Components Division line.

The new coaxial cable plug features lock-wire holes in its coupling nut to prevent loosening or unauthorized circuit tampering. Listed as #50-007-9036, it is designed for compatibility with UG-1462/U, 1463/U, 1464/U, 1467/U, and 1619/U. Mating end, materials, plating and environmental performance meet MIL-C-22557 specifications.

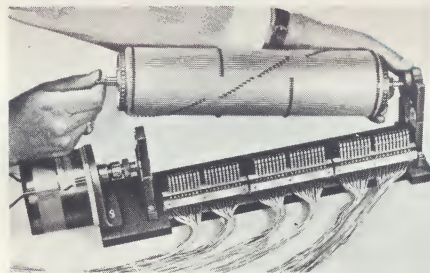
COAXIAL ASSEMBLY WITH TWIN 50-OHM CONNECTORS AVAILABLE FROM CONHEX®



A cable assembly utilizing twin 50-ohm stainless steel and brass coaxial connectors has been added to the ConheX line. The new assembly is mounted on 0.141" diameter semi-rigid coaxial cable.

The unique design of the assembly, designated ConheX #69-0567-703, enables the connector on the long leg to mate with a tightly confined receptacle simultaneously with the engagement of the other connector. Matched impedance and captivated contacts ensure high reliability. Other custom designed semi-rigid cable assemblies are also available.

REMOVABLE PROGRAMMING DRUMS FOR RAPID SYSTEM CONTROL CHANGES



A new "Sealectoswitch" 90-position programming switch designed to permit the memory drum to be removed from the switch chassis and replaced with another of similar capacity within 30 seconds is now available.

The capability of rapidly removing and replacing drums enhances programmer flexibility and operating speed since program changes can be made as easily as replacing a record on a turntable.

Lifting two levers on either end of the switch assembly releases the basic drum from the chassis. Another drum may then be simply dropped into the programmer and the two levers snapped into place.

With this feature, a user may have a library of programs that can be brought into play as easily as tapes, cartridges or other similar devices.

NEW PRESS-FIT® FEED-THRU TERMINAL DOUBLES AS A PROBE



A new tubular feed-thru terminal that can also be used as a 0.0625" diameter probe has been developed by the Circuit Hardware Division.

Designated Press-Fit FT-SM-56-L1, the new component is fabricated of pure virgin Teflon and has a gold-plated brass lug which extends 0.370" above the 0.172" shoulder of the Teflon bushing. In addition, the lug has a through hole measuring 0.040" in diameter.

LARGEST SEAELECTOSWITCH MAKES ITS DEBUT



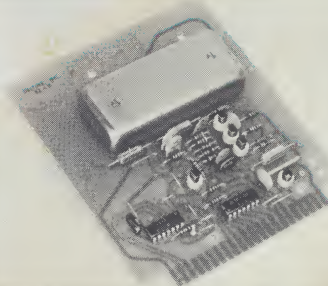
The world's longest "Sealectoswitch" rotating drum programming switch — three-feet long — has rolled off the assembly lines at Sealectro. The motor-driven controller has 176 electrical contacts and 60 programming positions, permitting a record selection of 10,560 electrical crosspoints on a single switch. Smaller versions of the unique switch are used for programming, sequencing, timing, code generation, scanning and multiplexing, and for controlling anything from lighting displays to industrial processing equipment. "Sealectoswitch" programmers have been in the World's Fair, television shows, automatic missile checkout equipment at Cape Kennedy, automated radio broadcasting equipment and stacker crane control systems.

NEW DELTIME® DIGITAL CIRCUIT MODULE HAS INTEGRATED CIRCUIT COMPATIBILITY

A digital circuit module for magnetostrictive delay lines featuring DTL 930 micrologic compatibility has been announced.

Designated Delttime Model RZ-9, this new module, when used with a suitable delay line, offers up to 10,000 μsec delay in the return-to-zero mode with a maximum p.r.f. of 1.0 MHz. Input pulse widths between 0.35 and 0.5 μsec at 1.5 volts amplitude are acceptable, while the width of the output pulse at 1.5 volts amplitude is nominally 0.5 μsec.

Model RZ-9 has a specified Fan-In of 4, Fan-Out of 25 and requires a power supply capable of delivering +10 volts ±10% at 21 ma below 1 KHz p.r.f., and at 56 ma for 1 MHz p.r.f., —10 volts, ±10% at 20 ma, and +5 volts at 35 ma. The unit is also available for ±12 volt and ±15 volt supplies with a 65 ma load on the positive supply.



SEE SEAELECTRO'S WIDE RANGE OF PRODUCTS AT WESCON